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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,987

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Carole Noutary

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DUANE MORRIS LLP - NY
PATENT DEPARTMENT
1540 BROADWAY
NEW YORK, NY 10036-4086

EXAMINER

SHAH, MANISH S

ART UNIT

PAPER NUMBER

2853

MAIL DATE

DELIVERY MODE

07/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/520,987	NOUTARY, CAROLE	
	Examiner	Art Unit	
	Manish S. Shah	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 & 4-19 of US Patent No. 7,368,485 in view of Laksin et al. (# WO 00/31189).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is disclosed in the US Patent and is covered by the US Patent claims except that the multifunctional (meth)acrylates comprising at least one mono functional (meth)acrylate monomer.

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Laksin et al. teaches to have the high quality printed image, ink composition multi functional (meth)acrylate or monofunctional (meth)acrylate (page: 12, line: 25-39; page: 15, line: 1-39, page: 16, line: 10-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of US Patent by the aforementioned teaching of Laksin et al. in order to have a high quality printed image.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robert et al. (# GB 2256874) in view of Mantell et al. (# US 5641346).

Robert et al. discloses photocurable ink compositions comprising acrylate oligomer, multifunctional acrylate monomers, water, 2-30 wt. % of a vinyl ether monomer and a free radical photoinitiator (see Abstract; page: 5, line: 1-3). The compositions preferably include a pigment, such as a pigment dispersion (page 5). Liquid arylketones are preferred photoinitiators. Robert et al. teaches using water in amounts from 10 to 50% by weight, while applicant claims ink "essentially free of water and/or volatile organic solvents". Robert et al. teaches that the vinyl ethers provide viscosity reduction, unlike the effect of acrylate monomer or water. They also discloses

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that the multi function (meth)acrylate comprising mono-functional (meth)acrylate monomers (page: 2, line: 1-10). With respect to claim 9, Robert et al. teaches using mixtures of aryl ketones but does not mention any specific photoinitiators. Weight percents of components within the instantly claimed ranges are disclosed in the Examples. Robert et al. does not teach the instantly claimed viscosity less than 50 mPas at 25⁰C desired for ink jet inks.

Mantell et al. discloses ink jet compositions having viscosities from 0.7 to 15 cP at 25⁰C (column: 9, line: 1-10) comprising a colorant comprising an epoxy, a vinyl ether or a mixture thereof and a photoinitiator (column 3, lines 33-67, and column: 5, line: 35-60). They also teaches that addition of a glycol vinyl ether monomer, such as ethyleneglycol monovinyl ether (column: 4, line: 1-15), confers satisfactory jetting properties to an ink composition, even without adding water (column 4, lines 25-51; column: 5, line: 1-15).

It would have been obvious to one skilled in the art to lower the viscosity of the ink compositions disclosed by Robert et al. by replacing water with glycol vinyl ether monomers to obtain an ink jettable viscosity, as taught by Mantell et al. in analogous art directed to ink compositions. Robert et al. provides motivation by teaching ink compositions comprising (meth)acrylate monomers and oligomers and vinyl ether monomers and that vinyl ethers are superior to water and to acrylate monomers for providing viscosity reduction. Mantell et al. provides motivation by teaching that addition of ethylene glycol monovinyl ether monomer confers satisfactory jetting properties to an ink composition, even without adding water. One of ordinary skill in the art at the time of

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the invention would have been motivated by a reasonable expectation of providing an ink jet ink composition free of water and having a low viscosity for ink jet printing, as taught by Mantell et al.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to incorporate the amount of mono functional (meth)acrylate monomer is from 60 to 80%, and the ratio to (meth)acrylate monomer to unsaturated ether monomer is between 2:1 and 15:1, since it has been held that it is not inventive to discovering and optimum value or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233 (CCPA1955).

Response to Arguments

3. Applicant's arguments filed 03/30/2009 have been fully considered but they are not persuasive. Applicant argued that the present invention is substantially free from multifunctional (meth)acrylate, substantially free means almost free, **not totally free**. Therefore according to present claim language combination of references still reads on claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Manish S. Shah/
Primary Examiner
Art Unit 2853

/MSS/